Report

PHASE I ENVIRONMENTAL SITE ASSESSMENT

19th Street Right of Way
Ambridge, PA
Portion currently owned by the Borough of Ambridge

PROJECT N. 03-101
SEPTEMBER 24, 2003

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1 INTRODUCTION

Ambridge Borough and Harmony Township collaborated with The Brownfields Center at Carnegie Mellon University, Beaver County, Ambridge Regional Center and the Beaver County Corporation for Economic Development (CED) in a preliminary plan for future development of the brownfield sites. The Borough and the Township identified 15 properties for evaluation by way of Phase 1 Environmental Site Assessment (ESA). Funding for same was obtained through the Pennsylvania Department of Community and Economic Development's Industrial Sites Reuse Program (ISRP).

A Phase 1 ESA, as defined by ASTM Standard E 1527-00, is conducted to permit formulation of an opinion concerning "recognized environmental conditions." The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum product on a property, under conditions that indicate an existing release, a past release, or a material threat of a release of these substances into structures on the property or into the ground, ground water, or surface water of the property. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or to the environment, and that generally would not be subject of an enforcement action if brought to the attention of appropriate government agencies.

The following report presents the results of a Phase 1 Environmental Site Assessment of 19th Street right of way, Ambridge, PA. According to Pamela Caskie, Ambridge Borough Manager, the 19th Street right of way is the property of the Borough; however, deeds records reflecting ownership were not able to be located.

The 19th Street Right of way sits on the northern border of the former H.H. Robertson Company Ambridge Division Plant. No specific information was found relating to the 19th Street right of way, therefore any potential environmental conditions have been assumed to be inherited from the neighboring industrial operation.

The subject Phase I Environmental Site Assessment has been performed by Unitellus Site Strategies, Pittsburgh, PA, under the direction of Dr. Deborah Lange, Ph.D., PE, and DEE.

2 SCOPE-OF-SERVICE

The assessment was conducted in compliance with the scope and limitations of ASTM Standard E 1527-00 *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process*.

The scope of services included the following tasks:

1. Historical review of the site, including:

    - Historical Sanborn Fire Insurance Maps review;
    - Historical aerial photographs review;
    - Chain-of-title search of the property at the Beaver County Courthouse
    - Interviews with persons familiar with the property;

2. Pennsylvania Department of Environmental Protection files review, to obtain information about the industrial activity conducted on the property, raw material utilized and waste material generated, and about possible site assessment, characterization or remediation performed.

3. Environmental agencies databases review, to obtain information about the potential for hazardous materials to exist at the site or at properties located in the vicinity (unless noted otherwise) of the site. The computer search was performed by EDR (Environmental Data Resources of Southport, Connecticut) for the entire Ambridge/Harmony industrial corridor and included the following databases:

Federal Sated Database

- NPL: National Priority List. The NPL is a subset of CERCLIST and identifies over 1,200 sites for priority cleanup under the Superfund Program.
- Proposed NPL: Proposed National Priority List.

- CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains data on potentially hazardous waste sites that have been reported to the U.S. Environmental Protection Agency (USEPA) by states, municipalities, private companies, and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
- CERC-NFRAP: CERCLIS sites designated No Further Remedial Action Planned.
- CORRACTS: Corrective Action Reports. CORRACTS identifies hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity.
- RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate (RCRIS SQG/LQG), transport, store, treat and/or dispose (RCRIS TSD) hazardous waste as defined by RCRA.
- ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

State Standard Databases

- SWF/L: Solid Waste Facilities/Landfill Sites. These records typically contain an inventory of solid waste facilities or landfills in a particular state.
- LUST: Leaking Underground Storage Tank. LUST records contain an inventory of reported leaking underground storage tanks incidents.
- UST: Underground Storage Tanks. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act, and must be registered with the State Department responsible for administrating the UST Program.
- VCP: Voluntary Cleanup Program. VCP records contain sites involved in the Voluntary Cleanup Program.

Federal Supplemental Databases

- CONSENT: Superfund Consent Decrees. Major legal settlements that establish responsibility and standards for cleanup at NPL sites.

- ROD: Record of Decision. ROD documents mandate a permanent remedy at NPL (Superfund) site containing technical and health information to aid in the cleanup.
- Delisted NPL: NPL Deletions. The National Oil and Hazardous Substances and Pollution Control Act (NCP) establish criteria that the USEPA uses to delete sites from the NPL.
- FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail.
- HMIRS: Hazardous Materials Information Report. HMIRS contains hazardous material spills incidents reported to the Department of Transportation (DOT).
- MLTS: Material Licensing Tracking System. MLTS contains a list of sites which possess or use radioactive material and which are subject to Nuclear Regulatory Commission (NRC) licensing requirements.
- MINES: Mines Master Index File..
- NPL Liens: Federal Superfund Liens. The USEPA has the authority to file liens against real properties in order to recover remedial action expenditures or when property owner receives notification of potential liability.
- PADS: Polychlorinated Biphenyls (PCB) Activity Database. PADS identifies generators, transporters, commercial storers and/or broker and disposers of PCBs who are required to notify the USEPA of such activities.
- RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA and pertaining to major violators.
- TRIS: Toxic Chemical Release Inventory System. TRIS identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313.
- TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances include in the TSCA Chemical Substances Inventory List.
- SSTS: Section 7 Tracking System. Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended, requires all registered pesticide-producing establishments to submit a report to the USEPA by March 1st each year.

- FTTS: FIFRA/TSCA Tracking System. FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), TSCA and Emergency Planning and Community Right-to-Know Act (EPCRA).

State or Local Supplemental Databases

- AST: Aboveground Storage Tanks. This database contains registered ASTs from the Pennsylvania Department of Environmental Protection's listing of Pennsylvania Regulated Aboveground Storage Tanks.

Historical databases

- Coal Gas: Former Manufactured Gas (COAL GAS) Sites. Real Property Scan, Inc. ©, provides the existence and location of Coal Gas sites exclusively to Environmental Data Resources (EDR).

4. Site reconnaissance of the property to identify the presence of potential sources of contamination, such as Above or Underground Storage Tanks, PCB transformers, stressed vegetation, areas of soil staining, woodblock flooring, pits, and other manufacturing conditions that could lead to releases and other potential environmentally significant items.

5. Interviews with persons familiar with the property related to historical ownership, use of the site and historical practices that could have caused any environmental impact.

6. Report preparation, to describe findings for the Phase I Environmental Site Assessment. Information from Items 1 through 5 above provide the basis for this report.

2.1 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

A Phase I ESA is conducted to permit formulation of an opinion as to the potential for hazardous material or petroleum products to exist at a site at levels likely to warrant mitigation pursuant to regulations of the Pennsylvania Department of Environmental Protection (PAEDEP). This report is not a comprehensive site characterization, and should not be construed as such. Opinions relative to potential environmental hazards given in this report are based upon information derived from the most recent site reconnaissance, a review of specific regulatory records and historical sources, and comments made by interviewees. Phase I ESAs, by their very nature, are limited. The most recent site reconnaissance was performed on August 19th 2003. Recipients of this Phase I ESA report are herewith advised that the conditions observed by Unitellus Site Strategies are subjected to change. Certain indicators of the presence of hazardous materials or petroleum products may have been latent at the time of the most recent site reconnaissance and may subsequently have become observable. In a similar manner, the research effort conducted for a Phase I ESA is limited. Accordingly, it is possible that Unitellus Site Strategies' research, while fully appropriate for a Phase I ESA, failed to indicate the existence of important information sources. Assuming that such sources actually exist, their information could not have been considered in the formulation of Unitellus Site Strategies' finding and opinions. The information contained in this Phase I ESA report are obtained from sources which Unitellus Site Strategies believes are reliable. Nonetheless, Unitellus Site Strategies cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

3 SITE DESCRIPTION

3.1 LOCATION AND LEGAL DESCRIPTION

The site is located in Ambridge, Pennsylvania, and is bordered on the south by the Electrical System Division of CENTRIA industrial site, two undeveloped industrial sites owned by Robertson Cecos, and a parcel owned by the Ambridge Borough Water Authority, which is used as a storage area. The northern border, with Waste Management of PA property, is underlined by a natural ravine.

FIGURE 1 and **FIGURE 2** provide the approximate location of the site; the first is a 1993 aerial photograph, the second is the USGS 7.5 minute topographic map.

3.2 PHYSICAL SETTING REFERENCES

3.2.1 Review of Topographic Maps

The United States Geologic Survey (USGS) 7.5 minute Topographic Map for the the Ambridge, Pennsylvania quadrangle (photorevised in 1990) was reviewed to provide information about the topography of the site. According to the map, the subject property has an elevation of approximately 760 feet Above Mean Sea Level (MSL).

3.2.2 Regional Geology

The site is underlain by Late Pleistocene unconsolidated sediments along the Ohio River, that originated from glacial outwash. Based on regional information, the bedrock at the site is assumed to be interbedded Pennsylvanian-age sandstone, shale, siltstone, and thin limestone of the Conemaugh Group (SE Technologies, 2002).

3.2.3 *Site Soils*

Soils at the subject property belong to the Urbanland-Arents complex (Ub). This soil series typically is situated on flood plains, terraces and uplands mostly along major waterways and highways. The Urbanland-Arents complex is approximately 50% Urban land, 40% Arents soils, and 10% other soils. Urban land is defined as land that has been altered by natural forces, cutting and filling, or obscured by building and pavement to the point that original soils cannot be identified. The Arents soils are generally found in areas where cuts and fills were made to reshape the surface. This material consists of heterogeneous earthy material, rock fragments, and parts of other soils. Depth to bedrock in the vicinity varies from 12 to greater than 50 feet below the surface. Permeability, available water capacity, runoff, internal drainage and reaction are variable in the Urbanland-Arents complex. The variability of this unit necessitates on-site investigation in order to determine its potential and limitations for proposed uses (Baker Environmental Inc., 1992).

3.2.4 *Regional Hydrogeology*

Regional groundwater flow along the Ohio River Valley is toward the river. The groundwater elevation within the alluvial aquifer is generally controlled by the pool elevation along the Ohio River. Due to the vertical relief between the Ohio River Valley and adjacent hillsides of approximately 400 feet, the Ohio River Valley is interpreted to represent a regional groundwater discharge zone. Groundwater flow paths within the alluvial aquifer and the underlying bedrock is interpreted to be upward (SE Technologies, 2002).

4 RECORDS REWIEW

4.1 HISTORICAL REVIEW

4.1.1 Historical operation information

The subject site is a narrow unpaved road, which is currently used by local people to walk from Oak Alley to the commercial zone on Merchant Street.

The former Ambridge Plant of H.H. Robertson Company was an adjoining property of the subject site, and it produced Steel Building Products. The industrial activity consisted in various process lines:

- a Steel Galvanizing Line,
- a Coil Coating Line,
- a Polyurethane Foam Panel Line
- several Steel Roll lines.

The Galvanizing Line used black or raw steel coils as raw material. The preparatory process included metal cleaning and treating operations. A surface zinc coating was then applied for corrosion prevention. The wastes generated in this process were detergents, alkalis and acids used in the cleaning and treatment of steel. The wastes or spills were collected into a sump tank from which they were pumped to a Waste Water Treatment Plant, where they were neutralized and the metals precipitated. The precipitate was disposed.

The operations conducted at the Coil Coating Line were treating and painting galvanized coils for the use in pre-fabricated steel products. The coating process consisted in pushing galbestos in galvanized sheets through a high pressure process, then submersing into an asphalt bath to fill the voids and coat the fibers. In the 1980's, the Versacor Swedish process was introduced at the property. The new process used epoxy coating on galvanized steel instead of galbestos. The

wastes generated from this line consisted also of acid and alkalis for steel treatment, which were collected into a sump and then processed at the Waste Water Treatment Plant. In addition, the painting operation generated waste solvents. The residual from painting operations was separated into liquid and solid wastes, labeled as hazardous material and sent to an outside disposal company.

4.1.2 Historical Sanborn Fire Insurance Maps review

Historical Sanborn Fire Insurance Maps for the years 1923, 1931, 1948 and 1959 were reviewed with the purpose of:

a) identifying past land uses at the subject property and the surrounding areas;
b) look for information of environmental concern which may have been indicated on the maps.

APPENDIX A contains copies of these maps.

In the 1923 map the subject property is labeled as "19th Street not open". The existing natural ravine is not shown on this map. The properties on the southern border are grouped as "Central Tube Company, Manufacturers of Steel Galvanized Pipe and Conduit".

The 1931 map shows the adjoining property on the northern border of the subject site labeled as "Wyckoff Drawn Steel Co.". A 12' water pipe is shown under the track of 19th Street. Land use on the adjoining properties appears relatively unchanged from the 1923 map.

The 1948 map shows the former Central Tube Company on the southern border of the subject property grouped as "H.H. Robertson Company, Manufacturers of Building and Roofing Material". Land use on the adjoining properties appears relatively unchanged from the 1931 map.

The 1959 map does not show relevant changes in land use on subject site or on adjoining properties from the 1931 and 1948 map.

4.1.3 Historical aerial photographs review

Aerial photographs of the site were reviewed for the years 1963, 1969, 1975, 1985, 1988 and 1993. The purpose of reviewing aerial photos was to identify past events and land use of potential environmental concern (e.g. storage of hazardous material, dumping, mining activities). **APPENDIX B** contains copies of these photographs.

All photographs show land use patterns similar to the present use. The adjacent properties located on both the north and south side of the subject site appear to be industrial areas. Small industrial and residential areas are located on the west side of the site, while a residential area is located on the east side. No changes in land use of surrounding properties were noted from the aerial photos review.

4.2 PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION FILES REVIEW

The research on relevant files from the Southwest Regional Office of Pennsylvania Department of Environmental Protection has shown no records regarding the subject property. No backup information has been found on underground storage tanks, and neither on environmental violation reported. No records were found regarding site assessment, characterization or remediation actions on the subject property.

The study has shown records regarding a general description of the industrial activity conducted at the adjoining former H.H. Robertson Company Ambridge Plant, raw material utilized, waste material generated and approximate storage location. The registered waste materials inventory includes waste water sludge, bag house dust, paint sludge, polyol, MDI and Methylene Chloride. Wastes from galbestos production have been eliminated since October 1983. No records were found regarding site assessment, characterization or remediation actions on former H.H. Robertson property.

North ↑

The research has provided files regarding a complete remediation process performed on former Wyckoff Steel Plant, from site assessment to the Final Report, with certified mail of cleanup and some deed restrictions on groundwater usage. In 1988 the remediation process of the site started, after discovering the presence of light non-aqueous phase liquids (LNAPL) on the water table

during an environmental assessment. Seven underground storage tanks were removed, and the contaminated soil was excavated for off-site disposal. A recovery well was installed immediately north of the former UST area, in order to recover LNAPL. The recovery system operated from September 1988 through July 1994, when the product recovery rate decreased near to zero through time. Site characterization activities were started in 1996 and 1998, to collect sufficient data to comply with the requirements of PADEP Act 2 for characterization of petroleum hydrocarbons in soil and groundwater. A Final Report was submitted to the Pennsylvania Department of Environmental Protection in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2), as defined in Chapter 3, Section 304 of Act 2. The Department approved the Final Report for the substances identified and remediated, providing liability protection where attainment of Act 2 Cleanup Standards were demonstrates. The project obtained a Site Specific and Non-Residential Statewide Health Standard, and the remediation involved deed restrictions as an institutional control.

The Waste Management site is subject to a restriction prohibiting the use or consumption for drinking or agricultural purposes of any groundwater located on or beneath the property. There are no restrictions to the use or consumption of the groundwater for industrial purposes, or as may be necessary for sampling or monitoring pursuant any ongoing remediation of the property.

4.3 ENVIRONMENTAL AGENCIES DATABASES REVIEW

The results of the environmental records search performed by EDR for the entire Ambridge/Harmony industrial corridor are included in **APPENDIX C.** The basic information from the database printout was extracted and summarized in **TABLE 1.**

The information show that the former HH Robertson is included in the database as a Facility Index System (FINDS) site and as a RCRIS large quantity hazardous waste generator. Waste Management of Pittsburgh is included in the database as a Facility Index System (FINDS) site and as a RCRIS small quantity hazardous waste generator, with no violations founded. The site is included also in the Aboveground Storage Tanks (AST) data basefor a 275 gallons tank of hazardous substances (antifreeze/water) and one 10,000 gallons diesel tank.

5 SITE RECONNAISSANCE

5.1 METHODOLOGY AND LIMITING CONDITIONS

Deborah A. Lange, Ph.D., PE, and DEE performed two site visit. The first site reconnaissance was made on June 25th 2003, and the second one, which was confirmatory, on August 19th 2003. The methodology used during the site visits consisted of a site walkover. George Michaels, shareholder in 14th Street Corporation, accompanied Dr. Lange during both the site visit. Mr. Michaels started with HH Robertson in 1966. Dr. Lange photographed the site as appropriate, and the photos are included in **APPENDIX D**.

5.2 GENERAL SITE SETTING, EXTERIOR AND INTERIOR OBSERVATIONS

The subject property is a narrow unpaved road. It runs between two fences and dense natural vegetation. There is a fence on the northern edge of the site that separates it from the Waste Management property. The southern boundary has a fence, which separates the subject property from the Electrical System Division of CENTRIA.

5.2.1 Hazardous substances in connection with identified uses

From the site reconnaissance no evidence of hazardous material storage was observed.

5.2.2 Indicators of hazardous materials releases

From the site reconnaissance no indicators of hazardous materials releases was observed.

According to Mr. Michaels, the adjoining property on the southern border now belonging to Robertson Ceco Corp. was formerly an acid lagoon, used to held spent sulfuric acid from the galvanizing line. Later, when the exhausted acid was held in an Aboveground Storage Tank,

sludge from the waste water treatment plant was disposed on the lagoon. Mr. Michaels could not remember any assessment or remediation action on the site.

5.2.3 Storage tanks

From the site reconnaissance no indicators of storage tanks was observed. Three manholes were observed along the road, which may be connected with the water pipe shown in the Sanborn maps under the track of 19th Street.

5.2.4 Indications of Polychlorinated Biphenyls (PCBs)

No indications of PCB were apparent during the site reconnaissance.

5.3 INTERVIEWS

Deborah A. Lange, Ph.D., PE, and DEE interviewed, during the site reconnaissance George Michaels, shareholder in 14th Street Corporation, David L. Haney, Aftermarket Technical Director of CENTRIA and Richard Simonetti, Site Manager of Waste Management of PA.

Mr. Haney showed the CENTRIA Electrical System Division border, which included, according to him, also a portion of the present 19th Street.

According to Mr. Simonetti no industrial activities have been conducted on the sloping south side of Waste Management property (the natural ravine).

6 CONCLUSIONS AND RECOMMENDATIONS

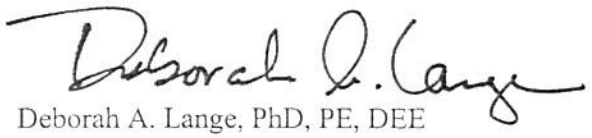
This assessment, based on the site reconnaissance, interviews and record searches, has revealed no evidence of recognized environmental conditions at the site. It is the professional opinion of Unitellus Site Strategies that there is no evidence of recognized environmental conditions in connections with the property.

A former acid lagoon used to held spent sulfuric acid and sludge from the industrial waste water treatment plant adjoins the property to the south. Additional research or testing should be conducted for possible groundwater contamination if a water well is planned to be installed. Additional testing on the soil should be recommended if significant excavation or the construction of building is planned for the southeastern portion of the site.

7 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

Respectfully submitted,

Unitellus Site Strategies, Inc.



Deborah A. Lange, PhD, PE, DEE

Principal

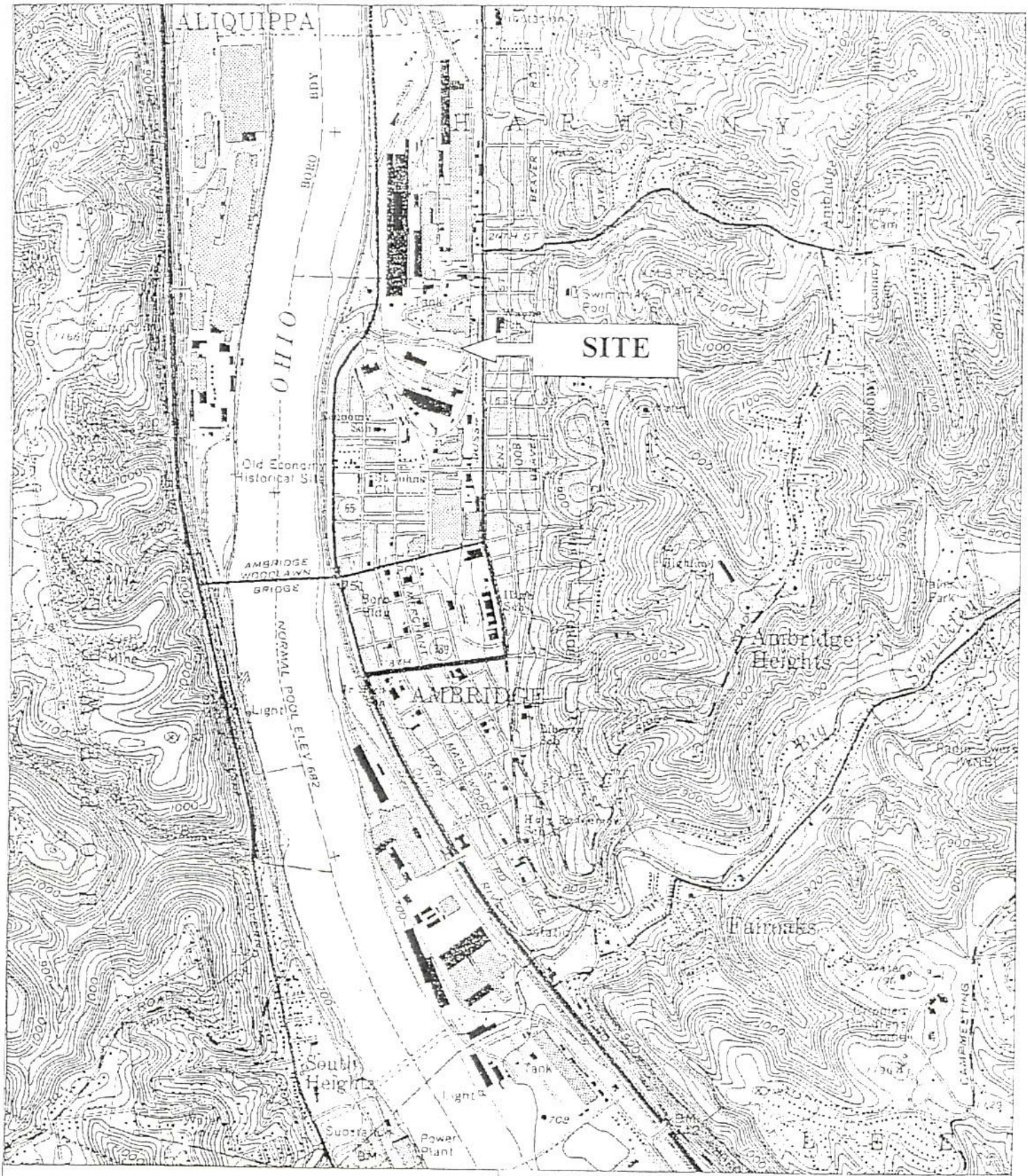
REFERENCES

- Baker Environmental, Environmental Site Assessment – Former H.H. Robertson Site, October 1992.
- SE Technologies, Final Report – Soil Characterization Report – Soil Remedial Investigation Report – Groundwater – Former Wyckoff Steel Plant, Ambridge, Pennsylvania, May 2002.

TABLES

TABLE 1: SUMMARY OF BASIC INFORMATION FINDINGS ON THE ENTIRE AMBRIDGE/HARMONY INDUSTRIAL CORRIDOR

FIGURES



UNITELLUS SITE STRATEGIES, INC	SITE VICINITY MAP
REFERENCE: U.S.G.S. 7.5 MINUTE SERIES TOPOGRAPHIC MAP AMBRIDGE QUADRANGLE, PENNSYLVANIA PHOTOREVISED 1990	
SCALE: 1:24,000	DATE: 11/9/03
	FIGURE 2

APPENDIX A

HISTORICAL RESEARCH DOCUMENTATION

SANBORN FIRE INSURANCE MAPS

APPENDIX B

HISTORICAL RESEARCH DOCUMENTATION

AERIAL PHOTOGRAPHS